

## **Education and Outreach: Improving Health Outcomes for People with Asthma**

Alisa M. Smith, Ph.D.  
Biologist  
OAR/ORIA/IED  
(202) 343-9372  
smith.alisa@epa.gov

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More than 20 million people in the U.S. have asthma, and exposure to environmental pollutants has been linked to the development of asthma as well as to the exacerbation of asthma symptoms (Institute of Medicine, National Academy of Sciences). National evidence-based guidelines for the diagnosis and management of asthma stress the importance of pharmacologic treatment in conjunction with control of triggers for effective disease management (NIH Publication No. 02-5075). The EPA Asthma Program, a collaboration between the Office of Radiation and Indoor Air's Indoor Environments Division and several Regional offices, provides education and outreach to raise national awareness about the importance of trigger avoidance. This multifaceted program reaches out to the general public; schools and child care communities; and the health care community through partnerships with Federal agencies and non-governmental organizations.

One program component, and the subject of this poster, is modeled on studies demonstrating that education about asthma triggers in the home and avoidance measures decreased hospitalization, ED visits, and unscheduled clinic visits for children with asthma (reviewed at <http://www.cdc.gov/nceh/airpollution/asthma/interventions/children.htm#home>). The EPA Asthma Program replicates these validated interventions by supporting community-based projects. These projects have resulted in improved health outcomes for the patients enrolled. For example,

- The Community Asthma Prevention Program at the Children's Hospital of Philadelphia showed reductions in the number of children with emergency room visits (60%) and hospitalizations (34%) for asthma as a result of their in-home environmental intervention program (HQ and Region 3 supported)
- The Clinical Directors Network, Inc. in-home intervention program showed that: unscheduled doctor visits decreased from 30% to 7%, and 69% never had an ED visit over a 10-month period. In addition, children with two or more ED visits in the 10-month intervention period decreased from 3% to zero. (Region 2 supported)
- The Denver Health and Hospital Authority program prevented 45 hospitalizations and 42 ED visits for the 94 patients referred to their asthma education program. (Region 8 supported)

The EPA Asthma Program continues to evaluate emerging scientific evidence supporting the link between environmental exposures and asthma. Six additional home-based intervention projects are in progress.